

REMARKS

Applicants respectfully request reconsideration of the application, as amended, in view of the following remarks.

The present invention as set forth in **amended Claim 1** relates to a substrate, comprising:

a relief;

wherein said relief consists of a low surface level and a high surface level,

said low surface level has a height not less than 1/10 of the dimensions of a plurality of motifs forming said high surface level,

wherein said dimensions are in the region of a micrometer,

wherein said height ranges between 0.1 and 10 micrometers, and

wherein said high surface level represents 1 to 65% of a surface of the substrate.

In contrast, Dettre et al discloses a relief having different dimensions in the order of a few hundred micrometers. See the Examples of Dettre et al.

The dimensions refer to both the height of the motifs and the characteristic dimension of said motifs (i.e. the diameter for cylindrical projections).

Based on the disclosure of Dettre et al a person of ordinary skill in the art has no motivation to make a relief as claimed having much smaller dimensions. Based the explanations given by Dettre et al at col. 1, lines 42-56, a person of ordinary skill in the art would have linked the repellent properties of the relief to its dimension in the order of a few ten or hundred of micrometers. According to the formula (1) of Dettre et al, the water repellency (measured by the value α) is a function of the dimension (width) of a drop and this property is closely linked to the nature of the solid surface area in contact with said water drop (Dettre et al, col.3, lines 42-54). Therefore, one can expect that the dimensions of the

texture are essential characteristics of Dettre's invention and therefore must remain in the disclosed and exemplified range of several hundred micrometers.

The Examiner has concluded that the range for the height of the high portions in Dettre et al is 0-125 microns. However, Dettre et al disclose in col. 3, line 73 that "said high portions having an average distance between adjacent high portions of not greater than 1000 microns, the average height of the high portions above the low portions being at least .5 times the average distance between adjacent high portions". In the Examples of Dettre et al, the values are often greater than the upper limit 125 microns suggested by the Examiner. For instance, the height is 200 to 300 microns in Example 1 and cylindrical projections are about 250 microns in diameter and 500 to 600 microns high in Example 1. Heights and characteristic dimensions as claimed are not exemplified. Thus, the present invention cannot be anticipated by or obvious over Dettre et al.

Further, the Examiner argues that Azzopardi et al discloses the agents of Claim 2. She refers to SiO₂ at col. 3, line 48 and to the formula at col. 3, line 60. However, SiO₂ is silica and not a silicone. Please see the attached four pages from the website "silicone review" explaining the difference between silicon, silica and silicone. Thus, even the combination of Dettre et al and Azzopardi et al cannot result in the present invention.

Further, the substrate of the present invention has excellent hydrophobic properties as shown by the angles of advance and retreat shown in the Table at page 11 of the specification. Notably, advancing angles as high as 170 degrees and retreating angles as high as 155 degrees can be achieved. There is no disclosure or suggestion in Dettre et al or Azzopardi et al that such excellent hydrophobic properties can be achieved with two height levels.

Therefore, the rejection of Claims 1, 3-8, 10-15, 27-31 and 61-63 under 35 U.S.C. § 102(b) as anticipated by Dettre et al and the rejection of Claims 2, 9 and 16-18 under 35

Application No. 09/926,367

Reply to Office Action of: March 21, 2005

U.S.C. § 103(a) as obvious over Dettre et al in view of Azzopardi et al (U.S. 6,299,981, the English equivalent of FR 2, 756,276) are believed to be unsustainable as the present invention is neither anticipated nor obvious and withdrawal of these rejections is respectfully requested.

The rejection of Claims 1-18, 27-31 and 61-63 under 35 U.S.C. § 112, second paragraph, is obviated by the amendment of Claim 1.

In regard to **non-elected Claims 19-26 and 32-60, 64**, Applicants note that should Claim 1 found allowable, these Claims should be allowable as well as they relate to methods of making the substrate of Claim 1 and directly or indirectly depend on Claim 1.

Application No. 09/926,367

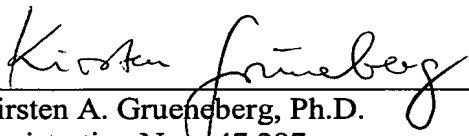
Reply to Office Action of: March 21, 2005

This application presents allowable subject matter, and the Examiner is kindly requested to pass it to issue. Should the Examiner have any questions regarding the claims or otherwise wish to discuss this case, he is kindly invited to contact Applicants' below-signed representative, who would be happy to provide any assistance deemed necessary in speeding this application to allowance.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.
Norman F. Oblon

Customer Number
22850


Kirsten A. Grueneberg, Ph.D.
Registration No. 47,297

Tel. (703) 413-3000
Fax. (703) 413-2220
NFO/KAG